



Phalangeal Fractures In Pediatric Hand Trauma: An Analysis of Epidemiology and Risk Factors

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BACKGROUND

- Phalangeal fractures are the most common pediatric hand trauma.
- The epidemiology and injury patterns of pediatric hand trauma are not well described.
- We characterized injuries among pediatric hand trauma patients to identify risks associated with phalangeal fractures.

METHODS

- 1311 patients had hand trauma from 2010-2020.
- Retrospective review was conducted.
- Binomial regression used for relative risks.

RESULTS

Mechanism	Total (n=754)
Sports	307 (40.7%)
MVC	3 (0.4%)
Household mishap	78 (10.3%)
Play	69 (9.2%)
Fall	84 (11.1%)
Bicycle/scooter/skateboard	20 (2.7%)
Door slam	145 (19.2%)
Violence	18 (2.4%)
Motorized non-vehicle	12 (1.6%)
Self-inflicted	2 (0.3%)
Cooking	5 (0.7%)
Animal bite	5 (0.7%)

Table 1. Mechanisms of injury in phalangeal fractures.

RESULTS

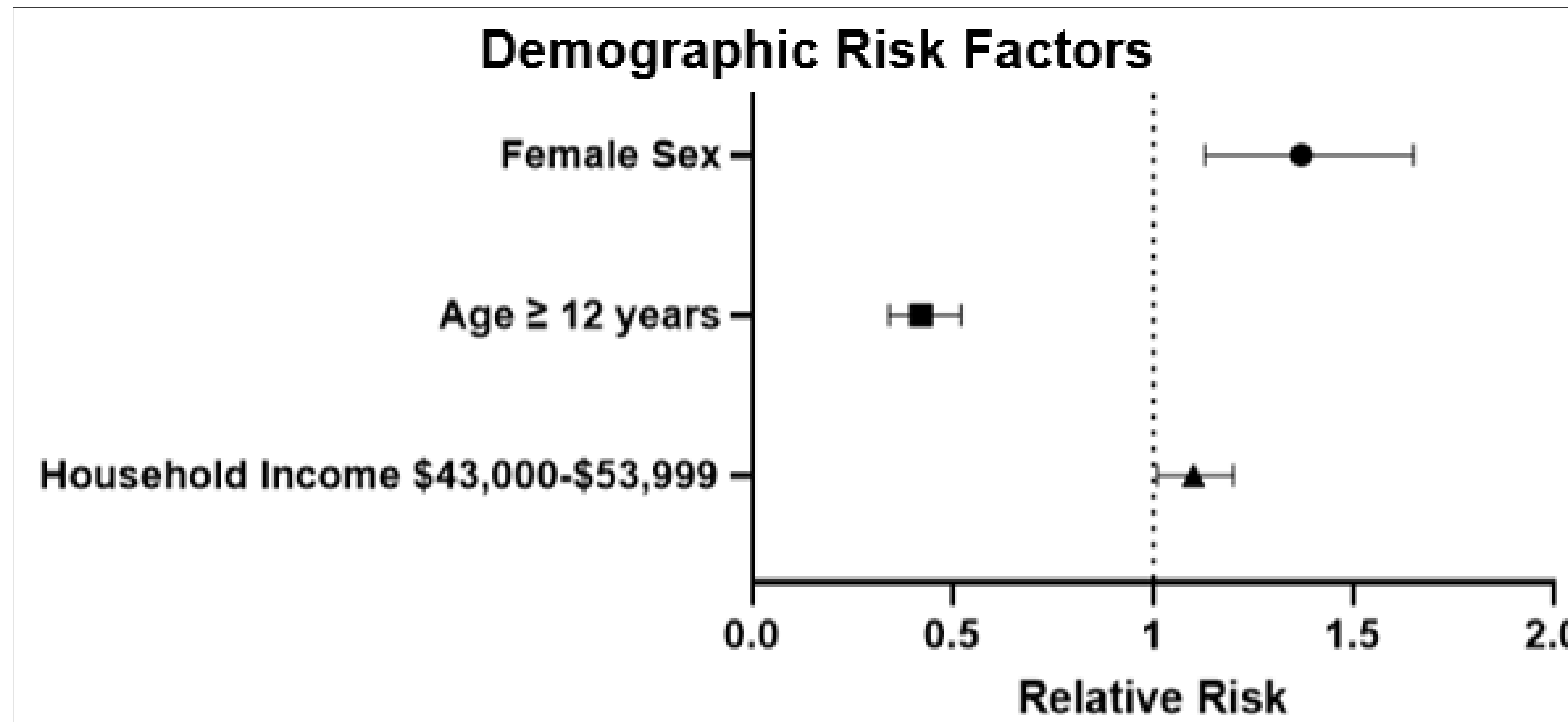


Figure 1. Demographic risk factors for phalangeal fractures.

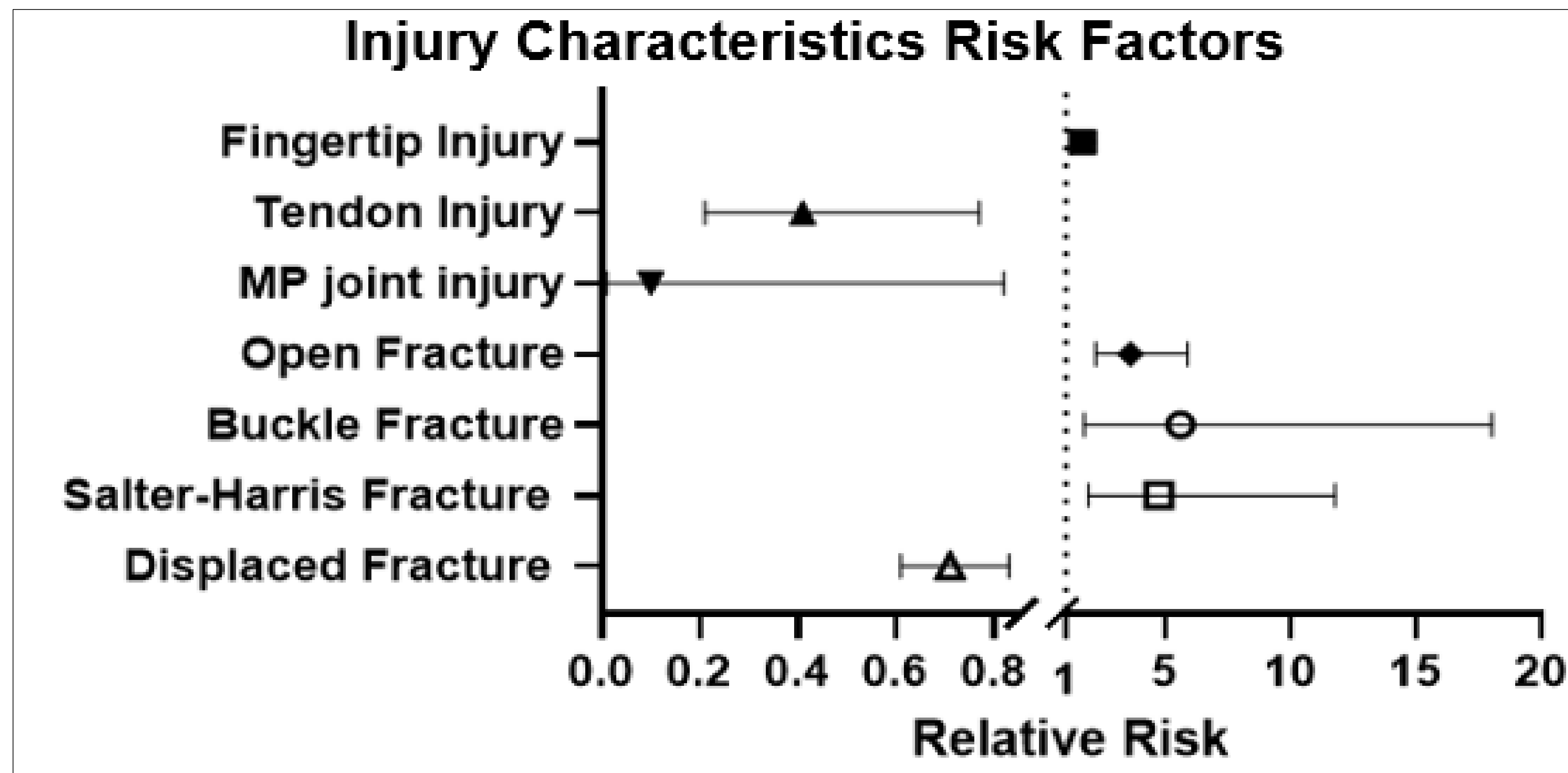


Figure 2. Injury-related risk factors for phalangeal fractures.

RESULTS

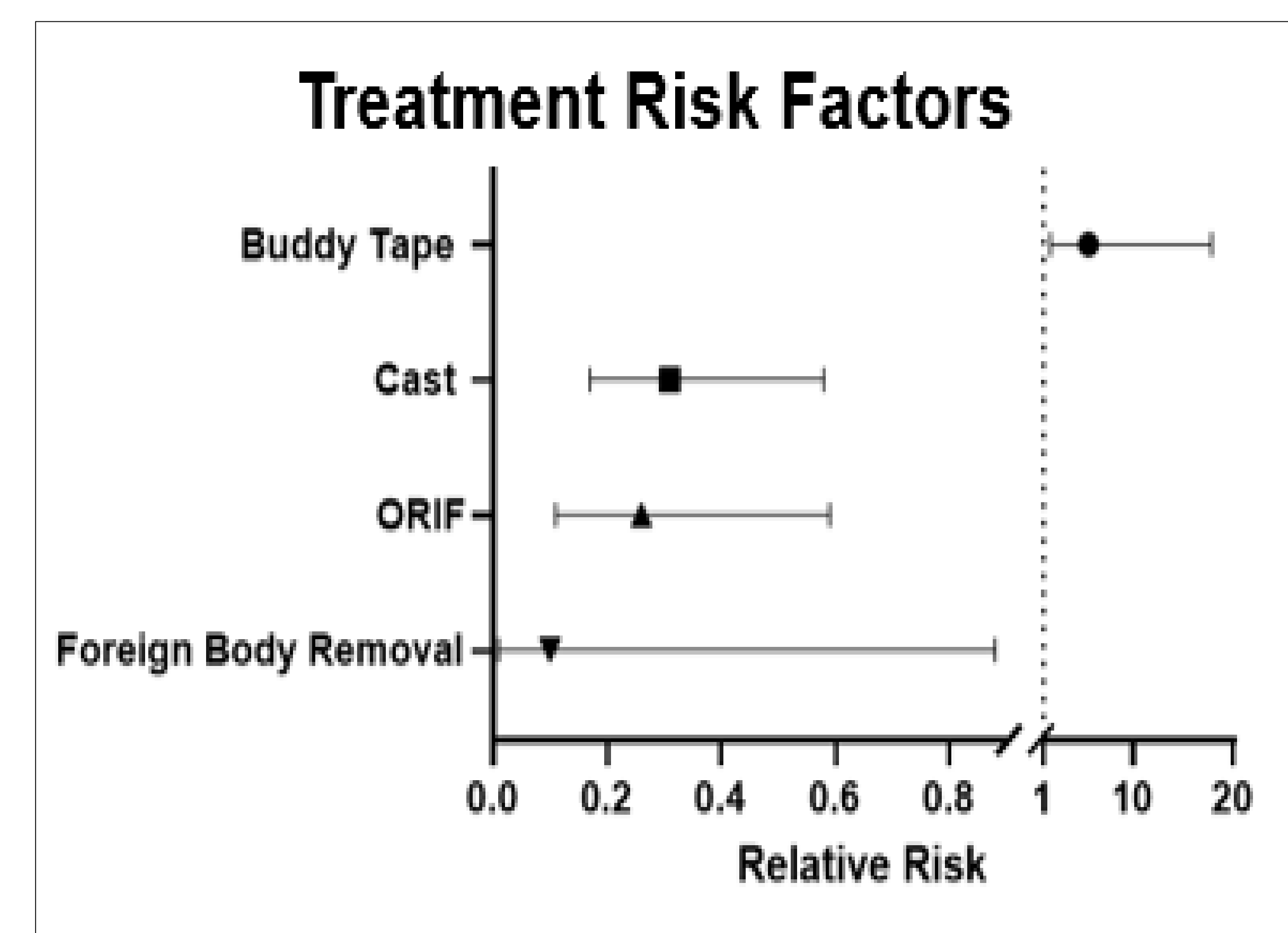


Figure 3. Injury management risk factors for phalangeal fractures.

CONCLUSIONS

- This represents one of the largest reported cohorts in pediatric hand trauma to date.
- Younger females with fingertip injuries were at highest risk for phalangeal fracture.
- Phalangeal fractures were more likely to result in complex fracture patterns.



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